

PROJECT LICENSED PROFESSIONAL CERTIFICATES

	T		
Cullen Anderson	Elmo Rajah		
Cullen Anderson	Elmo Rajah		
Apr 25, 2022	Apr 25, 2022		
AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
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55. 2151511.]		55. 2

NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

FILE NAME	\\wsdot.loc\nw\CAE_DATA\412	348\I-90_FireDetectionRepair\CAD\I90_PS_VM.dgn									Plot 2
TIME	4:35:50 PM				REGION STATE	FED.AID PROJ.NO.	1			I-90	PLAN REF NO
DATE	4/18/2022				10 WASH	1					CT1
PLOTTED BY	DannemA				10 WASH					MOUNT BAKER TUNNEL	
DESIGNED BY	A. DANNEMILLER				JOB NUMBER				Washington State	HEAT DETECTION SYSTEM REPAIR	SHEET
ENTERED BY	A. DANNEMILLER				22A004						2
CHECKED BY	J. MAGNUSSON				CONTRACT NO.	LOCATION NO.			Department of Transportation		_ OF
PROJ. ENGR.	C. ANDERSON						DATE	DATE		CERTIFICATION SHEET	13 SHEETS
REGIONAL ADM.	. M. COTTEN	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX		SERTIFICATION STILLT	SILEIS

DOT_RGG900

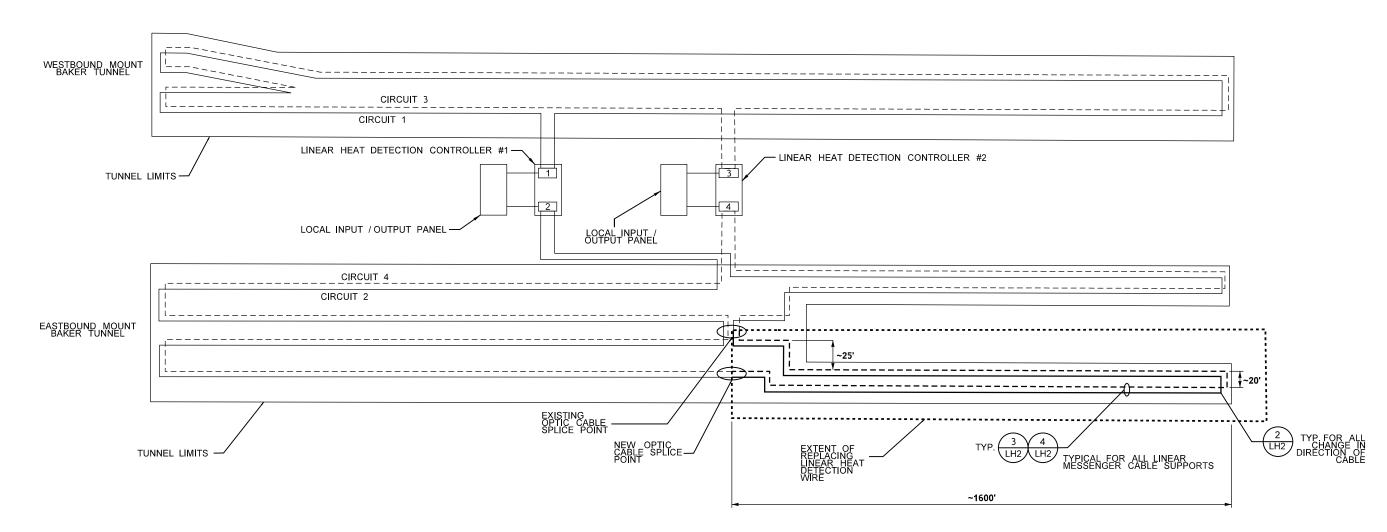
4/25/2022

SUMMARY OF QUANTITIES

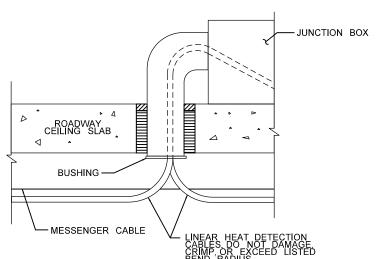
		SUB-TOTAL	SUB-TOTAL				GROUP 1	GROUP 2							
ITEM NO	TOTAL QUANTITY	SECTION I-07.2(1) OF STANDARD SPECS	SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	EB I-90 MT BAKER TUNNEL	THIRD PARTY DAMAGES							
	ĺ			i i		PREPARATION	ii —							İ	
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.								
l L							<u> </u>			1			1		<u> </u>
L						TRAFFIC	<u> </u>			1			1		
2	LUMP SUM		LUMP SUM		L.S.	LINEAR HEAT DETECTION SYSTEM REPAIR	L.S.			1		1	1		
3	LUMP SUM		LUMP SUM	6971	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.			1			1		
L	1									1			1	1	
<u> </u>	1					OTHER ITEMS				1					
4	5000.00					FORCE ACCOUNT POTHOLING UTILITIES	5,000.00			1					
5	7500.00		7500.00	7715	DOL	FORCE ACCOUNT MINOR ELECTRICAL REPAIR WORK	7,500.00			1					
6	2000.00		2000.00			ROADSIDE CLEANUP	2,000.00			1					
7	5.00		5.00	7725	DOL	REIMBURSEMENT FOR THIRD PARTY DAMAGE		5.00							
8	-1.00		-1.00	7728	DOL	MINOR CHANGE	-1.00								
9	-1.00		-1.00	7732	DOL	AGGREGATE COMPLIANCE PRICE ADJUSTMENT	-1.00								
10	LUMP SUM		LUMP SUM	7736	L.S.	SPCC PLAN	L.S.			1		1		1	
11	2.00		2.00	7569	EACH	NO TRESPASSING SIGN	2.00								
12	LUMP SUM					HEALTH AND SAFETY PLAN	L.S.					1	1		
13	5000.00		5000.00	7571	DOL	FA-SITE CLEANUP OF BIO. AND PHYSICAL HAZARDS	5,000.00					1	1		

GROUP	GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
LEGEND	1	090	170510	**	STATE
	2	090	170510	**	STATE

		REGION			I-90	SQ1
		JOB NL 22A 0		Washington State Department of Transportation	MOUNT BAKER TUNNEL HEAT DETECTION SYSTEM REPAIR	SHEET 3
DATE REVISION	BY	CONTR.	ACT NO	·	SUMMARY OF QUANTITIES	OF 13 SHEETS



MOUNT BAKER TUNNEL LINEAR HEAT DETECTION SCHEMATIC NOT TO SCALE



EXISTING LINEAR HEAT DETECTION CABLE CEILING PENETRATION NOT TO SCALE

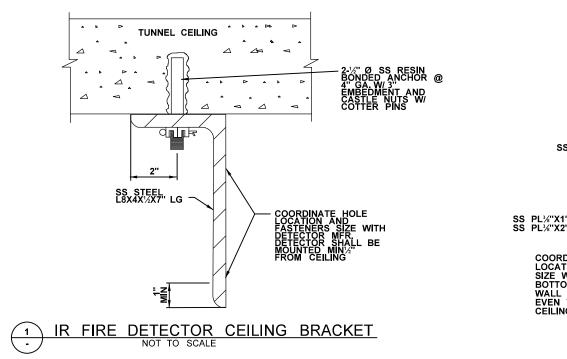
LINEAR HEAT DETECTION CABLE LOCATION NOTES:

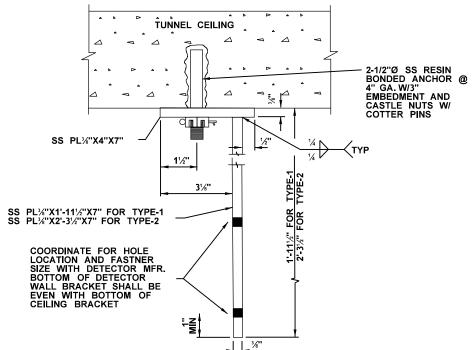
- 1. MAXIMUM DISTANCE BETWEEN TUNNEL WALL AND NEAREST CABLE SHALL BE 16' FEET.
- 2. MAXIMUM DISTANCE BETWEEN TWO CABLES SHALL BE 32 FEET.
- 3. CABLES SHALL NOT CROSS A LIGHTING CABLE TRAY.
- ${\bf 4.}$ MINIMUM DISTANCE BETWEEN CABLE AND LIGHTING CABLE TRAY SHALL BE ONE FOOT.
- 5. CABLES SHALL BE CENTERED OVER TRAVEL LANES.
- 6. LINEAR HEAT DETECTOR CABLING SHALL BE INSTALLED AS CLASS A.
- 7. MINIMUM VERTICAL CLEARANCE BETWEEN CABLE AND ROADWAY SURFACE SHALL BE 16'1".

NEW LINEAR HEAT DETECTION CABLE

LEGEND

FILE NAME	T:\412348\I-90_FireDetectionRe	epair\CAD\l90_PS_DetectorRepair.dgn									Plot 1
TIME	3:27:40 PM				REGION STATE	FED.AID PROJ.NO.	NANDES.	NO RAZAZ		I-90	PLAN REF NO
DATE	4/20/2022				10 WASH		A STATE OF THE STA	S OF WASHING			LH1
PLOTTED BY	DannemA				I IU WASII			I have she		MOUNT BAKER TUNNEL	
DESIGNED BY	A. DANNEMILLER				JOB NUMBER			lin Asjah	Washington State	HEAT DETECTION SYSTEM REPAIR	SHEET
ENTERED BY	A. DANNEMILLER				22A004		20122709	30315	3	TILAT DETECTION STOTEM KETAIK	4
CHECKED BY	J. MAGNUSSON				CONTRACT NO.	LOCATION NO.	SSIONAL EN	STONAL ENGINEERS	Department of Transportation		OF OF
PROJ. ENGR.	C. ANDERSON						SEE SHEET CT1	SEE SHEET CT1	-	LINEAR HEAT DETECTION DETAILS	13 SHEETS
REGIONAL ADM.	M. COTTEN	REVISION	DATE	BY			P.E. STAMP BOX	P.E. STAMP BOX			JAEE 18



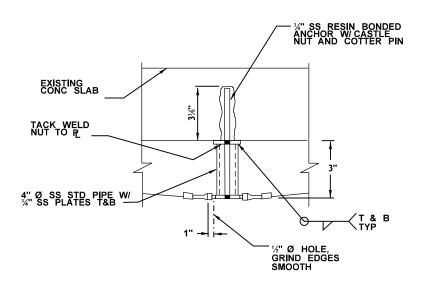


NOTE:
1. CONTRACTOR SHALL VERIFY THAT EACH BRACKET WILL FIT IN ITS DESIGNATED LOCATION WITH THE LOWEST PART OF BRACKET A MINIMUM OF 16'-1" ABOVE THE PAVEMENT.

5 IR FIRE DETECTOR SPECIAL CEILING BRACKET NOT TO SCALE

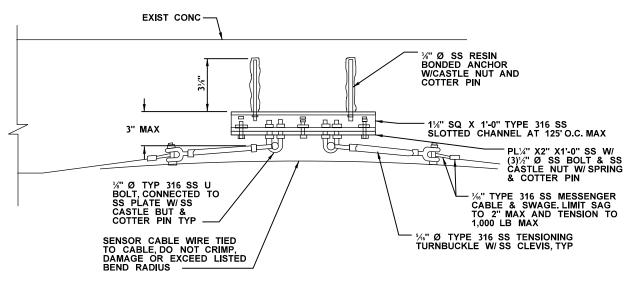
NOTES:

- 1. STRUCTURAL CONCRETE DEMOLITION AND DISPOSAL OF EXISTING PIPES, EMBEDS, ANCHORS, AND OTHER ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 2. CARE SHALL BE EXERCIZED WHILE DRILLING FOR RESIN BONDED ANCHOR BOLTS INTO THE EXISTING CONCRETE. THE EXISTING CONCRETE REINFORCING SHALL BE LOCATED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 3. RESIN BONDED ANCHORS SHALL BE STAINLESS STEEL IN ACCORDANCE WITH THE SPECIFICATIONS. EPOXY RESIN FOR RESIN BONDED ANCHORS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS
- 4. ABANDONED DRILL HOLES SHALL BE GROUTED AND PATCHED IN ACCORANCE WITH THE SPECIFICATIONS. A DEPTH GAGE SHALL BE USED TO ENSURE THAT HOLES ARE DILLED TO THE CORRECT DEPTH. ANCHORS SHALL BE PLACED A SUFFICIENT AMOUNT OF TIME AHEAD OF OTHER WORK TO ENSURE THAT THEY ARE NOT MOVED WHILE THE EPOXY IS CURING.



CHANGE IN DIRECTION OF CABLE DETAIL

NOT TO SCALE



3 LINEAR HEAT DETECTION DETAIL

NOT TO SCALE

SENSOR CABLES	%" Ø SS RESIN BONDED ANCHOR AT 45' OC MAX BTWN SUPPORT TYPE EXIST CONC
	SS COUPLING NUT SS LOCK NUT '/"Ø SS THREADED ROD SENSOR CABLE, MFR'S
	STANDARD OR RECOMMENDED MESSENGER CABLE SUPPORT AND CLIPS

4 LINEAR HEAT DETECTION DETAIL

FILE NAME	T:\412348\I-90_FireDetectionRe	palr\CAD\l90_PS_DetectorRepalr.dgn						
TIME	3:27:43 PM				REGION NO.	STATE	FED.AID PROJ.NO.	l
DATE	4/20/2022					WASH		L
PLOTTED BY	DannemA				יי ן	WASH		Ŀ
DESIGNED BY	A. DANNEMILLER					IUMBER		R
ENTERED BY	A. DANNEMILLER				22A	004		١
CHECKED BY	J. MAGNUSSON				CONTR	RACT NO.	LOCATION NO.	l
PROJ. ENGR.	C. ANDERSON							ı
REGIONAL ADM.	M. COTTEN	REVISION	DATE	BY				L





Washington State Department of Transportation

I-90									
MOUNT BAKER TUNNEL									
HEAT DETECTION SYSTEM REPAIR									

LINEAR HEAT DETECTION DETAILS

SHEET

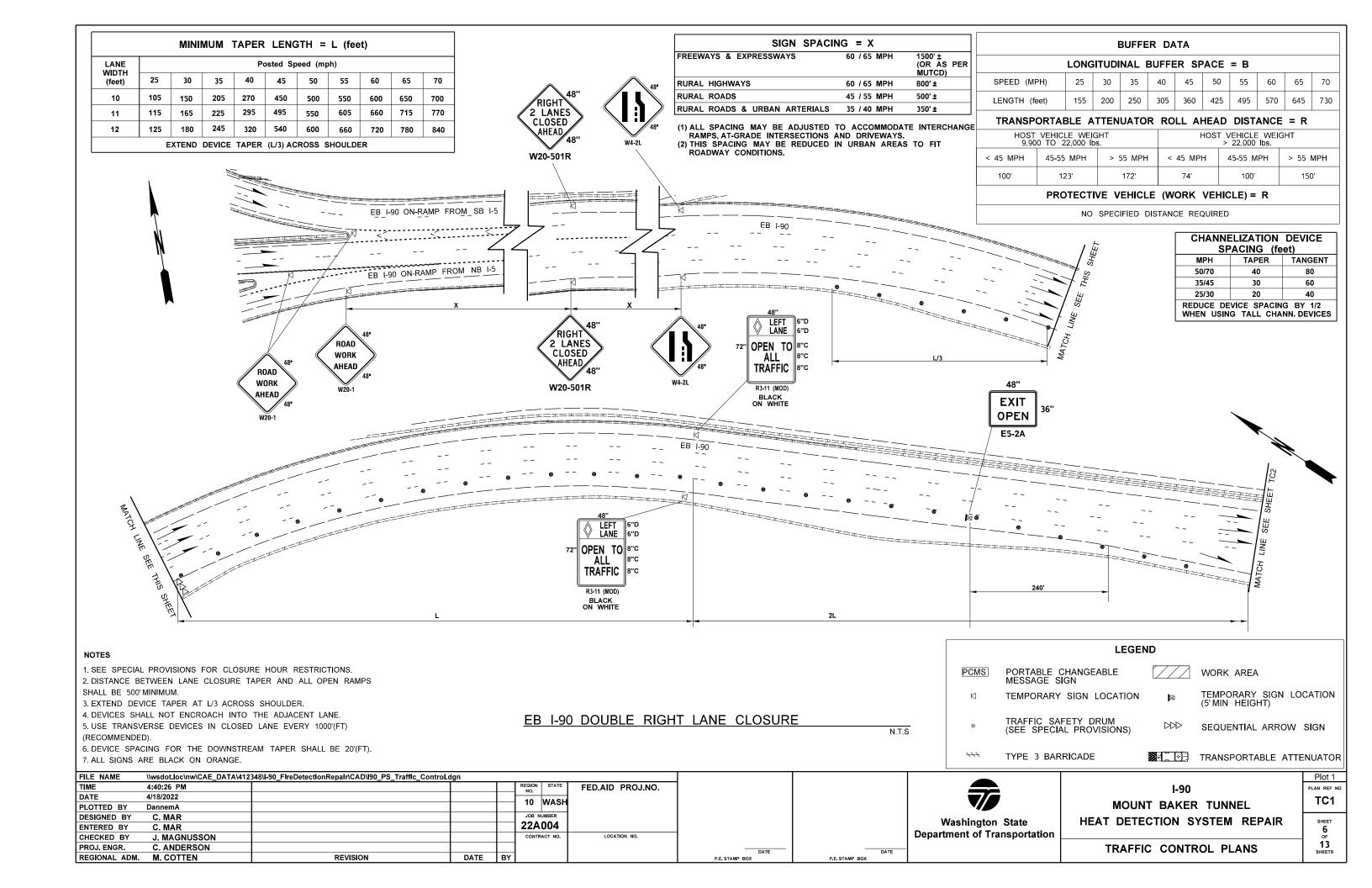
5

OF

13

SHEETS

Plot 2 PLAN REF N



SIGN	SPACING = X	
FREEWAYS & EXPRESSWAYS	60 / 65 MPH 1500' ± (OR A	S PER
	MUTCI	D) S
RURAL HIGHWAYS	60 / 65 MPH 800' ±	
RURAL ROADS	45 / 55 MPH 500' ±	L
RURAL ROADS & URBAN ART	TERIALS 35 / 40 MPH 350' ±	

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT

ROADWAY CONDITIONS.

	BUFFER DATA												
LONGITUDINAL BUFFER SPACE = B													
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70			
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730			
TDANCDODTAI	TRANSPORTABLE ATTENUATOR BOLL ALIEAD DISTANCE - D												

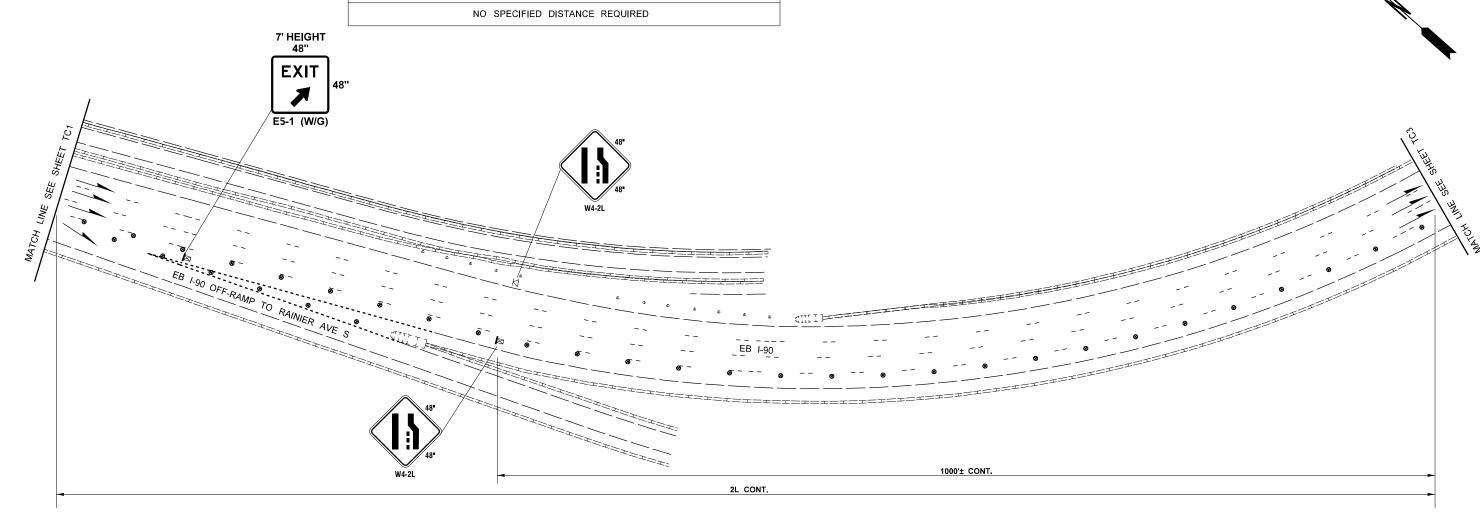
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

	VEHICLE WEIG 0 TO 22,000 lbs		HOST VEHICLE WEIGHT > 22,000 lbs.				
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH		
100'	123'	3' 172' 74' 100' 150'					
DECTECTIVE VEHICLE (MODE VEHICLE) - D							

PROTECTIVE VEHICLE (WORK VEHICLE) = R

MINIMUM TAPER LENGTH = L (feet)										
LANE Posted Speed (mph)										
WIDTH (feet)	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	600	650	700
11	115	165	225	295	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840
	E	XTEND	DEVICE	TAPER	(L/3) AC	ROSS	SHOULDE	R		

	CHANNELIZATION DEVICE SPACING (feet)								
MPH	MPH TAPER TANGENT								
50/70	50/70 40 80								
35/45	30	60							
25/30	20	40							
	VICE SPACIN G TALL CHA								



- 1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
- 2. DISTANCE BETWEEN LANE CLOSURE TAPER AND ALL OPEN RAMPS SHALL BE 500' MINIMUM.
- 3. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
- 4. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
- 5. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'(FT) (RECOMMENDED).
- 6. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'(FT).
- 7. ALL SIGNS ARE BLACK ON ORANGE.

EB I-90 DOUBLE RIGHT LANE CLOSURE

N.T.S

LEGEND PORTABLE CHANGEABLE MESSAGE SIGN

TEMPORARY SIGN LOCATION

TEMPORARY SIGN LOCATION (5' MIN HEIGHT)

TRAFFIC SAFETY DRUM (SEE SPECIAL PROVISIONS)

SEQUENTIAL ARROW SIGN

WORK AREA

TYPE 3 BARRICADE

TRANSPORTABLE ATTENUATOR

FILE NAME	\\wsdot.loc\nw\CAE_DATA\412	2348\I-90_FireDetectionRepair\CAD\I90_PS_Traffic_Control.	dgn				
TIME	4:40:28 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	4/18/2022					WASH	
PLOTTED BY	DannemA				ויין	WASH	
DESIGNED BY	C. MAR				JOB N	-	
ENTERED BY	C. MAR				22A	004	
CHECKED BY	J. MAGNUSSON				CONTR	ACT NO.	LOCATION NO.
PROJ. ENGR.	C. ANDERSON						
REGIONAL ADM.	M. COTTEN	REVISION	DATE	BY			

Washington State
Department of Transportation

I-90 MOUNT BAKER TUNNEL HEAT DETECTION SYSTEM REPAIR

TRAFFIC CONTROL PLANS

TC2 13 SHEETS

Plot 2

PLAN REF NO

SIGN SPAC	ING = X	
FREEWAYS & EXPRESSWAYS	60 / 65 MPH	1500'± (OR AS PER MUTCD)
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±

- (1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT
- ROADWAY CONDITIONS.

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet) 155 200 250 305 360 425 495 570 645 730										
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R										

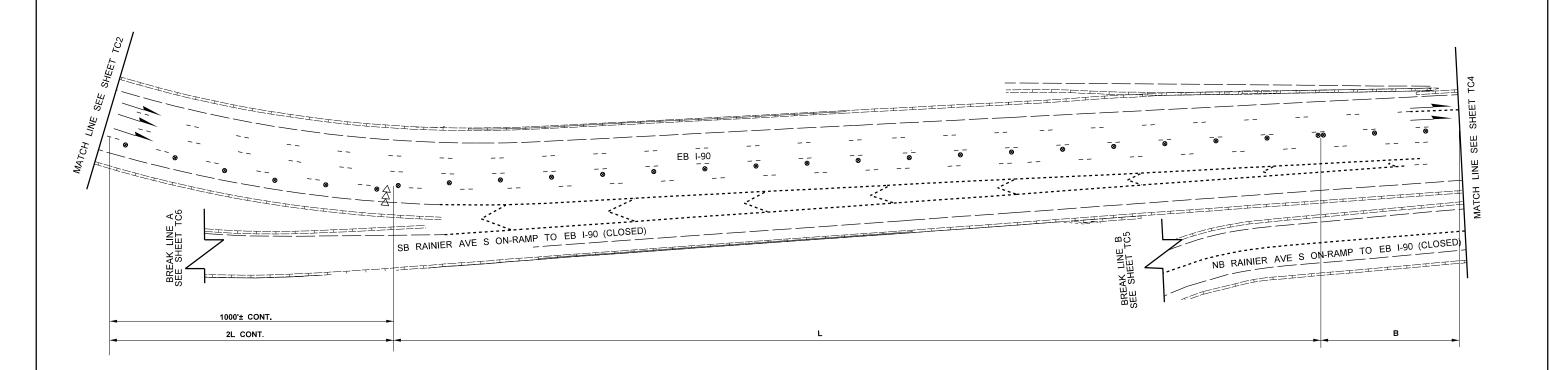
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R									
HOST VEHICLE WEIGHT HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs. > 22,000 lbs.									
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH				
100'	123'	172'	74'	100'	150'				

PROTECTIVE	VEHICLE	(WORK	VEHICLE) = R
------------	---------	-------	--------------

NO SPECIFIED DISTANCE REQUIRED

MINIMUM TAPER LENGTH = L (feet)										
LANE Posted Speed (mph)										
WIDTH (feet)	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	600	650	700
11	115	165	225	295	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840
	EXTEND DEVICE TAPER (L/3) ACROSS SHOULDER									

CHANNELIZATION DEVICE SPACING (feet)							
MPH	TAPER	TANGENT					
50/70	40	80					
35/45	30	60					
25/30	20	40					
	VICE SPACIN G TALL CHA						



- 1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
- 2. DISTANCE BETWEEN LANE CLOSURE TAPER AND ALL OPEN RAMPS SHALL BE 500' MINIMUM.
- 3. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
- 4. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
- 5. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'(FT) (RECOMMENDED).
- 6. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'(FT).
- 7. ALL SIGNS ARE BLACK ON ORANGE.

EB I-90 DOUBLE RIGHT LANE CLOSURE

N.T.S

DATE

DATE

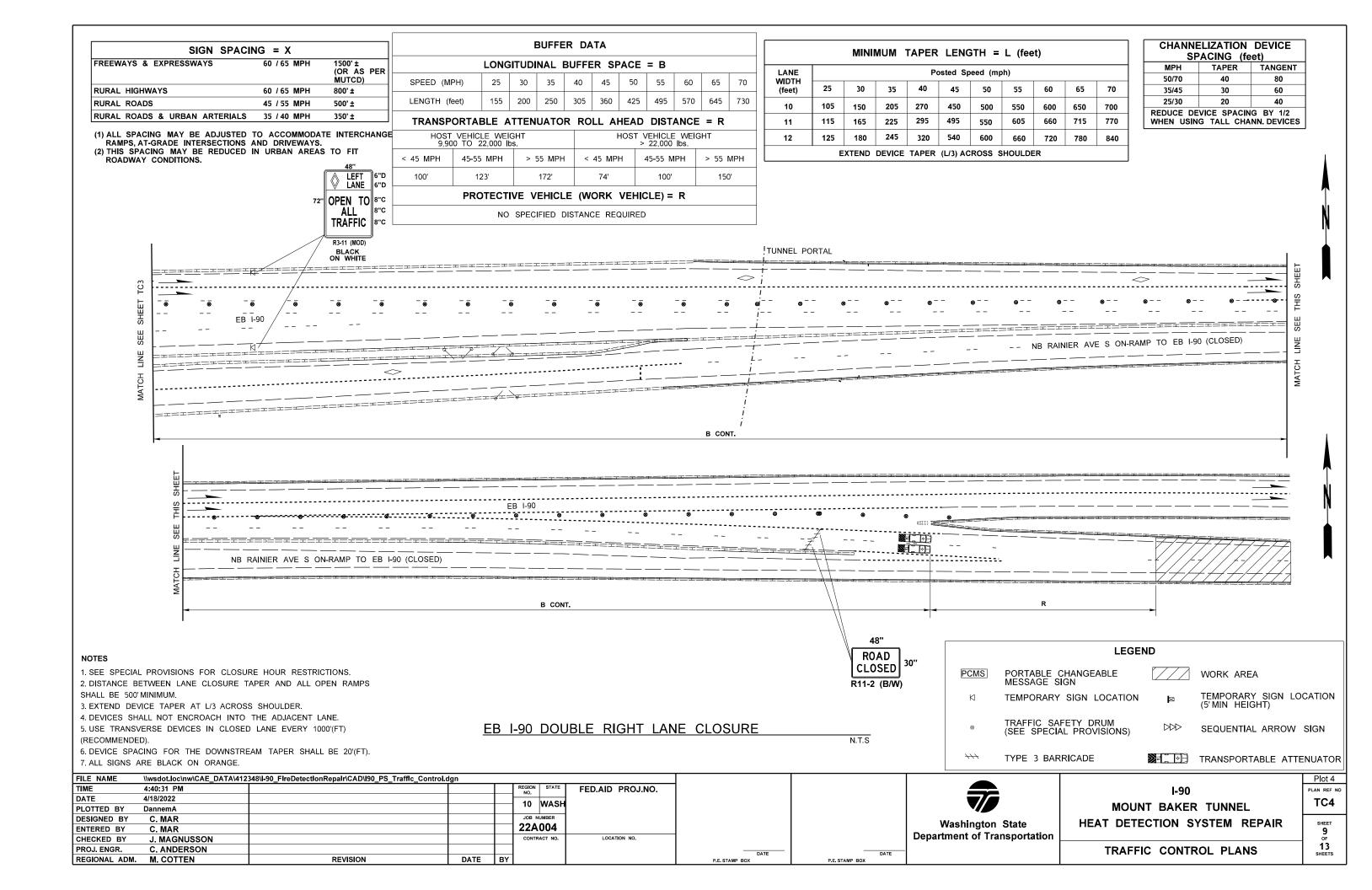
LEGEND PORTABLE CHANGEABLE MESSAGE SIGN WORK AREA TEMPORARY SIGN LOCATION (5' MIN HEIGHT) TEMPORARY SIGN LOCATION TRAFFIC SAFETY DRUM (SEE SPECIAL PROVISIONS) SEQUENTIAL ARROW SIGN TRANSPORTABLE ATTENUATOR

TYPE 3 BARRICADE

Washington State
Department of Transportation

	Plot 3
I-90	PLAN REF NO
MOUNT BAKER TUNNEL	TC3
HEAT DETECTION SYSTEM REPAIR	SHEET 8 OF
TRAFFIC CONTROL PLANS	13 SHEETS

FILE NAME	\\wsdot.loc\nw\CAE_DATA\4123	348\I-90_FireDetectionRepair\CAD\i90_PS_Traffic_Control.c	dgn				
TIME	4:40:29 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	4/18/2022					WASH	
PLOTTED BY	DannemA				١ ''	WASH	
DESIGNED BY	C. MAR					IUMBER	
ENTERED BY	C. MAR				22A	004	
CHECKED BY	J. MAGNUSSON				CONTE	RACT NO.	LOCATION NO.
PROJ. ENGR.	C. ANDERSON						
REGIONAL ADM.	M. COTTEN	REVISION	DATE	BY			



SIGN SPACII	NG = X	
FREEWAYS & EXPRESSWAYS	60 / 65 MPH	1500'± (OR AS PER MUTCD)
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±

- (1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT
- ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)											
LANE WIDTH	- · · - · · · · · · · · · · · · · · · ·										
(feet)	25	30	35	40	45	50	55	60	65	70	
10	105	150	205	270	450	500	550	600	650	700	
11	115	165	225	295	495	550	605	660	715	770	
12	125	180	245	320	540	600	660	720	780	840	
	Е	XTEND	DEVICE	TAPER	(L/3) AC	ROSS S	HOULDE	R			

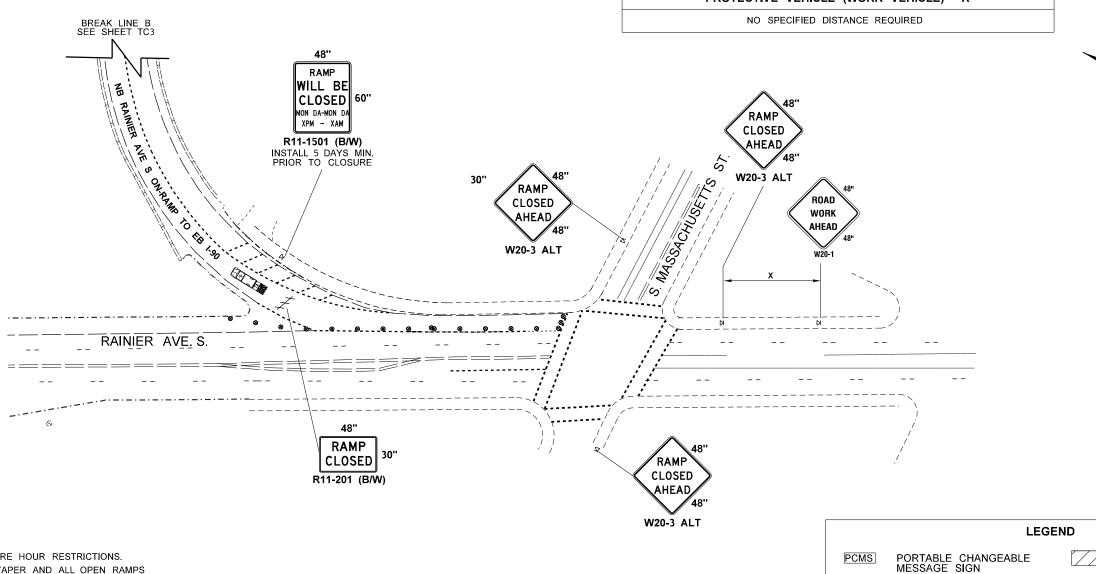
	BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B											
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70	
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730	

TRANSPORTABLE ATTENUATOR	ROLL AHEAD DISTANCE = R

	0 TO 22,000 lbs		> 22,000 lbs.				
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH		
100'	123'	172'	74'	100'	150'		

PROTECTIVE VEHICLE (WORK VEHICLE) = R

CHANNELIZATION DEVICE SPACING (feet)									
MPH TAPER TANGENT									
50/70 40 80									
35/45	30	60							
25/30	20	40							
	VICE SPACIN G TALL CHA								



NB RAINIER AVE S ON-RAMP TO EB I-90

SEE DU1 FOR DETOUR

DATE BY

- 1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
- 2. DISTANCE BETWEEN LANE CLOSURE TAPER AND ALL OPEN RAMPS SHALL BE 500' MINIMUM.
- 3. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
- 4. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
- 5. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'(FT) (RECOMMENDED).
- 6. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'(FT).
- 7. ALL SIGNS ARE BLACK ON ORANGE.

REGIONAL ADM. M. COTTEN

FILE NAME	\\wsdot.loc\nw\CAE_DATA\412348\i-90_FireDetectionRepair\CAD\i90_PS_Traffic_Control.dgn									
TIME	4:40:32 PM			REGION NO.	STATE	FED.AID PROJ.NO.				
DATE	4/18/2022			10	WASH					
PLOTTED BY	DannemA			10	WASH					
DESIGNED BY	C. MAR				NUMBER					
ENTERED BY	C. MAR			22A	004					
CHECKED BY	J. MAGNUSSON			CONT	RACT NO.	LOCATION NO.				
PROJ. ENGR.	C. ANDERSON									

REVISION

DATE DATE

N.T.S

Washington State **Department of Transportation**

TEMPORARY SIGN LOCATION

TRAFFIC SAFETY DRUM (SEE SPECIAL PROVISIONS)

TYPE 3 BARRICADE

	Plot 5
I-90	PLAN REF NO
MOUNT BAKER TUNNEL	TC5
HEAT DETECTION SYSTEM REPAIR	SHEET 10

10 of 13 TRAFFIC CONTROL PLANS

TEMPORARY SIGN LOCATION (5' MIN HEIGHT)

SEQUENTIAL ARROW SIGN

TRANSPORTABLE ATTENUATOR

WORK AREA

SIGN SPA	ACING = X				E	BUFFE	R DA	ATA	
FREEWAYS & EXPRESSWAYS	60 / 65 MPH	1500' ± (OR AS PER		LONG	SITUDI	NAL I	BUFFE	ER SP	,
		MUTCD)	SPEED (MPH)	25	30	35	40	45	
RURAL HIGHWAYS	60 / 65 MPH	800' ±	LENGTH (C. I)	455	200	050	205	250	r
RURAL ROADS	45 / 55 MPH	500' ±	LENGTH (feet)	155	200	250	305	360	L
RURAL ROADS & URBAN ARTERIA	LS 35 / 40 MPH	350' ±	TRANSPORTA	BLE A	ATTEN	UATO	R RO	LL A	Н
(1) ALL SPACING MAY BE ADJUSTI		E INTERCHANGE		LE WE	IGHT				-10

- KAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

 (2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

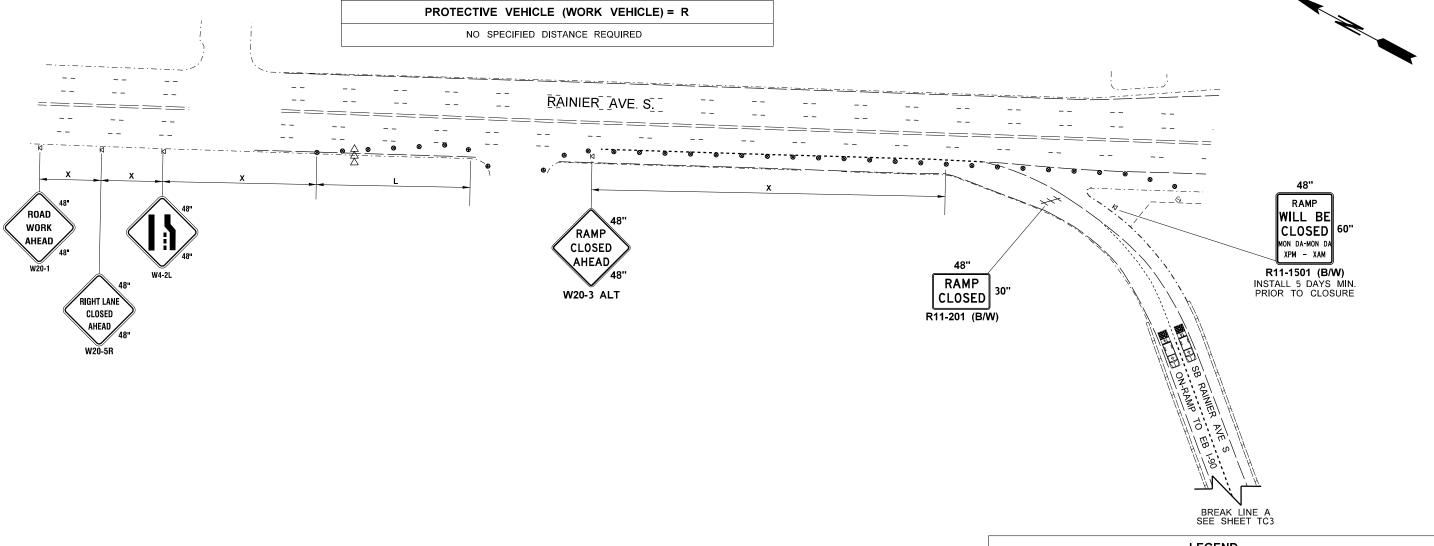
	BUFFER DATA												
LONGITUDINAL BUFFER SPACE = B													
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70			
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730			

TRANSPORTABLE ATTENUATOR	ROLL AHEAD DISTANCE = R

	HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs. HOST VEHICLE WEIGHT > 22,000 lbs.					
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH 45-55 MPH > 55 MPH			
100'	123'	172'	74'	100'	150'	

		MINI	MUM	TAPER	LENC	STH =	L (fee	et)		
LANE WIDTH	Posted Speed (mph)									
(feet)	25 30 35 40 45 50 55 60 65 7								70	
10	105	150	205	270	450	500	550	600	650	700
11	115	165	225	295	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840
	E	XTEND	DEVICE	TAPER	(L/3) AC	ROSS	SHOULDE	ER .		

CHANNELIZATION DEVICE SPACING (feet)					
MPH	TAPER	TANGENT			
50/70	40	80			
35/45	30	60			
25/30	20	40			
REDUCE DEVICE SPACING BY 1/2 WHEN USING TALL CHANN DEVICES					



- 1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
- 2. DISTANCE BETWEEN LANE CLOSURE TAPER AND ALL OPEN RAMPS SHALL BE 500' MINIMUM.
- 3. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
- 4. DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
- 5. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000'(FT) (RECOMMENDED).
- 6. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'(FT).
- 7. ALL SIGNS ARE BLACK ON ORANGE.

SB RAINIER AVE S ON-RAMP TO EB I-90 SEE DU2 FOR DETOUR

N.T.S

DATE

	LEGEN	טו	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN		WORK AREA
И	TEMPORARY SIGN LOCATION	Þ	TEMPORARY SIGN LOCATION (5'MIN HEIGHT)
8	TRAFFIC SAFETY DRUM (SEE SPECIAL PROVISIONS)		SEQUENTIAL ARROW SIGN

TYPE 3 BARRICADE

TRANSPORTABLE	ATTENUATOR
TRANSPORTABLE	ATTENUATOR

FILE NAME	\\wsdot.loc\nw\CAE_DATA\412348\I-90_FireDetectionRepair\CAD\I90_PS_Traffic_Control.dgn						
TIME	4:40:33 PM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	4/18/2022						
PLOTTED BY	DannemA				10	WASH	
DESIGNED BY	C. MAR				JOB NUMBER		
ENTERED BY	C. MAR				22A	004	
CHECKED BY	J. MAGNUSSON				CONTR	RACT NO.	LOCATION NO.
PROJ. ENGR.	C. ANDERSON						
REGIONAL ADM.	M. COTTEN	REVISION	DATE	BY			

Washington State
Department of Transportation

I-90
MOUNT BAKER TUNNEL
HEAT DETECTION SYSTEM REPAIR
TRAFFIC CONTROL PLANS

Plot 6 PLAN REF NO TC6 SHEET 11 13 SHEETS

